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(FILE 'HOME' ENTERED AT 14:24:42 ON 25 SEP 2000)

FILE 'CAPLUS' ENTERED AT 14:24:46 ON 25 SEP 2000

		E	SOMMERMEYER KLAUS/IN,AU
L1	37	S	E2-4
L2	81	S	HENNING KLAUS/IN,AU
		E	HENNING KLAUS/IN,AU
L3	81	S	E3-4
L4	0	S	GORG MICHAEL/IN,AU
		E	GORG MICHAEL/IN,AU
		E	GORG M/IN,AU
		E	MAUL THOMAS/IN,AU
L5	1	S	E3-4
L6	1	S	L1 AND L3 AND L5
		E	GOERG MICHAEL/IN,AU
L7	2	S	E3-4
L8	1	S	L1 AND L3 AND L5 AND L7
L9	112	S	L1 OR L3 OR L5 OR L7
L10	84141	S	STARCH
L11	13	S	L9 AND L10
L12	12	S	L11 NOT L8

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1999:116661 CAPLUS
DOCUMENT NUMBER: 130:169771
TITLE: Method and apparatus for continuous preparation of hydrolyzed, optionally substituted starches and their use
INVENTOR(S): **Sommermeyer, Klaus**; Henning, Klaus; Goerg, Michael; Maul, Thomas
PATENT ASSIGNEE(S): Fresenius A.-G., Germany
SOURCE: Ger., 6 pp.
CODEN: GWXXAW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19744353	C1	19990211	DE 1997-19744353	19971008
WO 9907743	A1	19990218	WO 1998-EP5011	19980807
W: BR, CA, CN, MX, NO, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1001993	A1	20000524	EP 1998-946298	19980807
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
NO 2000000636	A	20000208	NO 2000-636	20000208
PRIORITY APPLN. INFO.:			DE 1997-19734370	19970808
			DE 1997-19744353	19971008
			WO 1998-EP5011	19980807

AB In the title process, which is economical and gives products with controlled properties, useful in medicine and in foods (no data), an aq. suspension of starch is fed continuously by gravity, essentially without mixing, to the hydrolysis stage and hydrolysis is interrupted at the desired degree by neutralization. A block diagram of the process and app. is included.

L12 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1998:548684 CAPLUS
DOCUMENT NUMBER: 129:150312
TITLE: The reaction of **starch** and ethylene oxide giving hydroxyethyl **starch** (HES) can be controlled by near infra-red spectroscopy (NIR)
AUTHOR(S): Hildebrand, Ulrich; Cech, Franz; **Sommermeyer, Klaus**
CORPORATE SOURCE: Fresenius A.-G., Friedberg, D-61169, Germany
SOURCE: Starch/Staerke (1998), 50(7), 306-309
CODEN: STARDD; ISSN: 0038-9056
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: German

AB The controlled parameter is the molar substitution (MS), which is measured by means of a probe directly from the neutralized and filtered reaction soln. According to the type of HES (200/0.5, 130/0.4, or 50/0.2) the measured MS depends on the concn. of HES in the soln. To prevent distorted results the content of HES 130/0.4 and HES 50/0.2 must be adjusted to 25% (w/v) for this individual calibration. Only in the case of HES 200/0.5 the concn. can vary between 19-29% for measuring the MS. NaCl as a byproduct of the process does not effect the measurement .ltoreq.10% NaCl in the sample. The temp. of the soln. does not influence the result significantly (in the range of 20-34.degree.). The reproducibility of the MS detn. is good. The day-to-day std. deviation of 25 repetitions is +/- 0.005 for a sample with MS = 0.405. Nevertheless the biggest problem for the detn. of MS by NIR is ethylene glycol (EG), the most important byproduct of the reaction. If the concn. of EG differs significantly from that in the calibration samples, the calibration of the method must be revised.

L12 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1996:268328 CAPLUS
DOCUMENT NUMBER: 124:292796
TITLE: Process for manufacture of **starch** decomposition products
INVENTOR(S): **Sommermeyer, Klaus**; Goerg, Michael; Henning, Klaus
PATENT ASSIGNEE(S): Fresenius Ag, Germany
SOURCE: Ger. Offen., 6 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4434877	A1	19960404	DE 1994-4434877	19940929
WO 9610042	A1	19960404	WO 1995-EP3806	19950926

W: AU, BR, BY, CA, CN, CZ, EE, FI, HU, JP, KR, LT, MX, NO, NZ, PL,

RO, SI, SK, UA, US
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

CA 2201355	AA	19960404	CA 1995-2201355	19950926
AU 9537424	A1	19960419	AU 1995-37424	19950926
EP 783528	A1	19970716	EP 1995-935380	19950926
EP 783528	B1	19980812		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE

CN 1161045	A	19971001	CN 1995-195412	19950926
JP 10506425	T2	19980623	JP 1995-511373	19950926
BR 9509095	A	19980623	BR 1995-9095	19950926
HU 77721	A2	19980728	HU 1998-753	19950926
AT 169641	E	19980815	AT 1995-935380	19950926
ES 2122686	T3	19981216	ES 1995-935380	19950926
ZA 9508157	A	19960509	ZA 1995-8157	19950929
NO 9701323	A	19970321	NO 1997-1323	19970321
FI 9701293	A	19970401	FI 1997-1293	19970326
US 5945528	A	19990831	US 1997-809362	19970515
PRIORITY APPLN. INFO.:			DE 1994-4434877	19940929
			WO 1995-EP3806	19950926

AB The manuf. of **starch** (I) decompn. products in high yield with a narrow mol. wt. distribution by treatment of I or I derivs. by high-pressure homogenization is described. Thus, partially decompd. wax maize I, with an av. mol. wt. of 2,689,000 Da, was reacted with ethylene oxide to give hydroxyethyl **starch** (II). A 15 wt.% soln. of II in un-purified form was homogenized at 50-70.degree. and 1600 bar for 10 times in a high-pressure homogenizer to give a product with a wt. av. mol. wt. of .apprx.670,300 Da.

L12 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER:	1993:59974 CAPLUS
DOCUMENT NUMBER:	118:59974
TITLE:	Systematic GC/MS analysis of 1,2-O-ethyleneglucose derivatives in hydrolyzates of hydroxyethyl **starch**
AUTHOR(S):	Hildebrand, Ulrich; Cech, Franz; Rupp, Daniela; **Sommermeyer, Klaus**
CORPORATE SOURCE:	Chem. Pharm. Forsch. Entwickl., Fresenius AG, Oberursel, 6370, Germany
SOURCE:	Starch/Staerke (1992), 44(11), 426-33 CODEN: STARDD; ISSN: 0038-9056
DOCUMENT TYPE:	Journal
LANGUAGE:	German

AB Sixteen 1,2-O-ethylene-D-glucose derivs. were identified in hydrolyzates of hydroxyethyl **starch** by gas chromatog.-mass spectrometry after persilylation. Besides the common MS fragments of silylated compds. four significant fragments of the bicyclic intramol. glucosidation products of monocyclic (2-O-hydroxyethyl)glucose derivs. were found: m/z 86, 127, 229 and 277. These ions allow identification of trimethylsilylated 1,2-O-ethyleneglucose derivs. in a complex mixt. as well as the differentiation of isomers and anomers. The typical fragmentation pattern of trimethylsilyl-1,2-O-ethyleneglucose derivs. is described and is verified by the study of the corresponding acetyl derivs.

L12 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1992:658266 CAPLUS
DOCUMENT NUMBER: 117:258266
TITLE: Moistening composition for the oropharyngeal mucosa containing hydroxyethyl **starch**
INVENTOR(S): **Sommermeyer, Klaus**; Mueller, Hans Joerg
PATENT ASSIGNEE(S): Fresenius AG, Germany
SOURCE: Ger. Offen., 3 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4113684	A1	19921029	DE 1991-4113684	19910426

AB The title compn. is useful as an artificial saliva for patients with defective saliva secretion, sialadenitis, etc. Use of hydroxyethylstarch to increase the viscosity eliminates the problem of formation of a film or coating on the mucosa which occurs with prior art compns. contg. CM-cellulose. Thus, an oral spray contained H2O 40.696, K2HPO4 0.017, sorbic acid 0.025, BzONa 0.030, high-mol.-wt. hydroxyethyl **starch** 4.092, sorbitol 1.523, KCl 0.061, NaCl 0.043, MgCl2.6H2O 0.003, CaCl2.2H2O 0.007, lemon essence 0.700, D-panthenol 2.538, and CO2 (propellant) 1.015 g/spray dose.

L12 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1992:537593 CAPLUS
DOCUMENT NUMBER: 117:137593
TITLE: Fine structure and hyperfine structure of clinically applied hydroxyethyl **starch**
AUTHOR(S): **Sommermeyer, Klaus**; Hildebrand, Ulrich; Cech, Franz; Pfitzer, Edith; **Henning, Klaus**; Weidler, Burghard
CORPORATE SOURCE: Fresenius AG, Oberursel, 6370, Germany
SOURCE: Starch/Staerke (1992), 44(5), 173-9
CODEN: STARDD; ISSN: 0038-9056
DOCUMENT TYPE: Journal
LANGUAGE: German

AB The Mark-Houwink-relations for different samples of clin. used hydroxyethyl **starches** were established by multi-detection HPGPC. In combination with the degree of branching, the degrees of substitution DS and the molar substitution MS for the different mol. regions were measured by gas chromatog. methylation anal. Within the mol. regions of nonreducing anhydroglucose units, branching units and linear units characteristic differences were found.. For hydroxyethyl **starches** which were prepd. from enzymically hydrolyzed waxy corn **starch** by .alpha.-Amylase, a significantly higher degree of branching was found than for samples prepd. by acid hydrolysis. The clin. relevance of these results is discussed.

L12 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1992:451188 CAPLUS
DOCUMENT NUMBER: 117:51188
TITLE: Chromatographic studies on the polydispersity of

hydroxyethyl **starch**

AUTHOR(S): **Sommermeyer, Klaus**; Cech, Franz; Hildebrand, Ulrich; Pfitzer, Edith; Baumbach, Cornelia

CORPORATE SOURCE: Oberursel, Germany

SOURCE: Starch/Staerke (1992), 44(6), 215-18
CODEN: STARDD; ISSN: 0038-9056

DOCUMENT TYPE: Journal

LANGUAGE: German

AB A representative sample of clin. used hydroxyethyl **starch** was sepd. by semipreparative high-pressure gel permeation chromatog. (HPGPC)into narrow fractions in the range of approx. 3000 to 800,000. The original sample and selected fractions were characterized by gas chromatog. methylation anal. according to their substitution degrees MS and DS, which were differentiated by the substitution positions at C2, C3 and C6 of the anhydroglucoses and their kind of glycosidic bonding .alpha.-1, .alpha.-1, 4 or .alpha.-1,4,6, resp. Furthermore, polydispersity in relations to the degree of branching was detd. Mark-Houwink and mol.-wt. distribution parameters detd. by multi-detection HPGPC are reported. The presented data demonstrated an extensive homogeneity of the original sample. The clin. relevance is discussed.

L12 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1992:176417 CAPLUS

DOCUMENT NUMBER: 116:176417

TITLE: Characterization of polymers by size exclusion chromatography using multiple detection. Investigations on the determination of structural differences of hydroxyethyl **starches**

AUTHOR(S): **Sommermeyer, K.**; Cech, F.; Pfitzer, E.; Roessler, K.

CORPORATE SOURCE: Pharm. Div., Fresenius A.-G., Oberursel/Taunus, 6370, Germany

SOURCE: Chromatographia (1992), 33(3-4), 151-3
CODEN: CHRGB7; ISSN: 0009-5893

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An aq. size-exclusion chromatog. system was outlined using dual detection by a multi-angle laser light scattering photometer and a concn. detector. The differences in the radii of gyration at the same mol. wt. of two hydroxyethyl **starches** with different mol. structure were presented. The detn. of the Mark-Houwink relation for these polymers led to a qual. similar result.

L12 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1991:464034 CAPLUS

DOCUMENT NUMBER: 115:64034

TITLE: Pharamcokinetic parameters as criteria for clinical use of hydroxyethyl **starch** preparations

AUTHOR(S): Weidler, B.; Von Bormann, B.; **Sommermeyer, K.**; Lohmann, E.; Peil, J.; Hempelmann, G.

CORPORATE SOURCE: Abt. Anaesthesiol. Oper. Intensivmed., Justus-Liebig-Univ., Giessen, W-6300, Fed. Rep. Ger.

SOURCE: Arzneim.-Forsch. (1991), 41(5), 494-8
CODEN: ARZNAD; ISSN: 0004-4172

DOCUMENT TYPE: Journal

LANGUAGE: German

AB The pharmacokinetics of 2 com. hydroxyethyl **starch** prepns., differing only slightly in their pharmaceutical descriptions, were detd. in volunteers. Significant differences were found, related not only to the degree of substitution but also to the position of the hydroxyethyl groups on the anhydroglucose skeleton. The C2/C6 hydroxyethylation ratio seemed to be the most significant for detg. whether the **starch** would be slow- or long-acting when used for plasma replacement/hemodiln. Such data should be included in the pharmaceutical specifications for hydroxyethyl **starch**, because the differences may det. clin. use and efficacy.

L12 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1991:435717 CAPLUS
DOCUMENT NUMBER: 115:35717
TITLE: Pharmaceutical formulations containing nonhygroscopic carnitine mandelate
INVENTOR(S): **Sommermeyer, Klaus**; Henning, Klaus
PATENT ASSIGNEE(S): Fresenius A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 3 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3841664	A1	19901011	DE 1988-3841664	19881210

AB L-Carnitine D-(-)-mandelate (I) is a nonhygroscopic carnitine salt usable in drug formulations. I was prepd. by lyophilizing a soln. of 8 g L-carnitine and 7.64 g D-(-)-mandelic acid in 40 mL water. Tablets comprised I 250, **starch** 40, talc 15, and Mg stearate 5 mg.

L12 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1991:124846 CAPLUS
DOCUMENT NUMBER: 114:124846
TITLE: Hydroxyethyl **starch** as plasma expander and its preparation
INVENTOR(S): **Sommermeyer, Klaus**; Cech, Franz; Weidler, Burghard; Henning, Klaus
PATENT ASSIGNEE(S): Fresenius A.-G., Fed. Rep. Ger.
SOURCE: Eur. Pat. Appl., 6 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 402724	A1	19901219	EP 1990-110531	19900602
EP 402724	B1	19960214		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
DE 3919729	A1	19901220	DE 1989-3919729	19890616
DE 3919729	C2	19920326		
DE 3919729	C3	19970619		

AT 134196	E	19960215	AT 1990-110531	19900602
ES 2082800	T3	19960401	ES 1990-110531	19900602
US 5218108	A	19930608	US 1990-533294	19900605
JP 03026701	A2	19910205	JP 1990-156633	19900614
PRIORITY APPLN. INFO.:			DE 1989-3919729	19890616

AB Hydroxyethyl **starch** (I) which is degraded in a physiol. reasonable time with no residues is prepd. by prehydrolysis of amylopectin-rich **starch**, hydroxyethylation to degree of substitution (DS) 0.15-0.5, and hydrolysis to mol. wt. (6-60) .times. 104, giving I with ratio of C-2 substitution to C-6 substitution 8-20:1. **Starch** was washed and partially acetalized with MeOH, solvated with 1% methanolic HCl at 40.degree. until the mol. wt. was 900,000, washed with 0.1 N NaOH, hydroxyethylated in 1 N NaOH at 20.degree. and pH .gtoreq.12, with 2-chloroethanol (0.77 mol/2.58 mol **starch**), hydrolyzed with HCl, and subjected to ultrafiltration to give I with mol. wt. 234,000 and D.S. 0.26. Complete hydrolysis gave glucose 81.2%, 2-, 3-, and 6-hydroxyethyl glucose 12.42, 2.70, and 1.33%, resp., and bis(hydroxyethyl) glucose isomers 1.04%.

L12 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1988:101348 CAPLUS
DOCUMENT NUMBER: 108:101348
TITLE: Use of tryptophan-containing oligopeptides for treatment of cerebral disorders
INVENTOR(S): **Sommermeyer, Klaus**; Weidler, Burghard
PATENT ASSIGNEE(S): Fresenius A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 6 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3601398	A1	19870723	DE 1986-3601398	19860118
EP 234186	A1	19870902	EP 1987-100072	19870106
EP 234186	B1	19911106		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 69163	E	19911115	AT 1987-100072	19870106
ES 2038603	T3	19930801	ES 1987-100072	19870106
US 4849408	A	19890718	US 1987-1517	19870107
JP 62169730	A2	19870725	JP 1987-4217	19870113
PRIORITY APPLN. INFO.:			DE 1986-3601398	19860118
			EP 1987-100072	19870106

AB Oligopeptides contg. .gtoreq.1 L-tryptophan or L-tryptophan-derived amino acid are used for treatment of cerebral disorders, esp. insomnia and depression. Tablets were manufd. to contain L-Ala-L-Trp 1500, corn **starch** 100, alginic acid 10, and Me stearate 10 parts, all ingredients except the Mg stearate being mixed with aq. 15% corn **starch** paste and granulated and sieved before the Mg stearate addn. and tablet pressing.

L12 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1982:168750 CAPLUS
DOCUMENT NUMBER: 96:168750

TITLE: Blood substitute containing hemoglobin
INVENTOR(S): Pitz, Heiner; **Sommermeyer, Klaus**
PATENT ASSIGNEE(S): Fresenius, Dr. Eduard, Chemischpharmazeutische Industrie K.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 26 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3029307	A1	19820304	DE 1980-3029307	19800801
DE 3029307	C2	19891207		

AB A blood substitute consists of cell-free Hb bound to a polysaccharide by way of reactive groups and a bridging ligand. The polysaccharide is preferably dextran or hydroxyethyl **starch** with a mol. wt. of 10,000-500,000. The bridge is a C3-14 unsatd. aliph. or C14 or less cycloalkyl or aryl group. Thus, dextran or hydroxyethyl **starch** was oxidized with NaIO4, dialyzed, and treated with 2M ethylenediamine at pH 5, stirred for 6-10 h, mixed with tris(hydroxymethyl)methyl-2-aminoethanesulfonic acid to block excess aldehyde groups, dialyzed, adjusted to pH 7.5 and a phosphate concn. of 0.5M with solid KH2PO4 and Na2HPO4, and stirred with 25% aq. glutardialdehyde for 18 h at 37.degree., followed by dialysis to remove the excess. The soln. was treated with human Hb in pH 9.5 0.2M bicarbonate buffer at 5.degree., filtered, ultrafiltered, and freeze-dried.